

# Stewardship Notes

Indiana Division of Forestry



## Tornado Damaged Woodlands

Salvage, protection and improvement work are the keys to restoring tornado-ravaged Woodlands. With the aid of a professional forester, woodland owners should make an on-the-ground inspection of the woods to determine the total area affected by the high winds.

Time is of the essence! Trees damaged during the growing season will deteriorate rapidly! It is necessary for the landowner to address this problem immediately!



If the inspection indicates there is a reasonable quantity of salvageable material of either Pulpwood size (8" to 20" DBH\*) or saw log size (12" and up DBH\*), the landowner may wish to seek marketing assistance from a professional forester. The forester may mark the boundaries of the affected area, as well as additional mature trees outside the affected area. These additional marked trees may increase interest among timber buyers.

Trees that are broken off or badly twisted will have little or no salvage value as saw logs. Pulpwood markets are scattered and there is little or no market north of US 40 east of Indianapolis, or north of I-74 west of Indianapolis. Even in those areas that do have a Pulpwood market, a sufficient volume of pulpwood must be located in each affected area to attract pulpwood buyers.

Trees over 12" DBH\* along the fringe of the main tornado path that have been simply pushed over can be salvaged for lumber. If the downed trees are crisscrossed or if excessive debris clogs access, logging will be more hazardous and more expensive. At a

minimum, the logger should be able to recover at least 1,500 board feet of saw logs per acre of harvested area in order to have an economical cut. This figure should be increased when extensive road building is required for the logger to reach the affected area. It might also be lowered if the logs are of very high quality, such as veneer logs.

## **CLEARCUTTING**

Clearcutting is the only sound silvicultural approach to harvesting the areas that lie within the destructive path of a tornado. All remaining trees over 2" DBH\* will be damaged so badly that they will never develop into merchantable trees. Trees that are not made available for harvest should be deadened to prepare the site for natural regeneration. Where desirable natural regeneration does not occur, prepare the site for tree planting or direct seeding.

The condition of tornado damaged trees is so unpredictable that after a forester has evaluated the condition of the woods, a landowner will frequently find it necessary to depend upon a reputable buyer to cut out as many logs as possible and settle for a price after the logs are cut. This practice is definitely not recommended for good standing timber, but in tornado damaged trees, it may be necessary to take what you can get or lose it all.

Once the immediate problem of salvage has been solved or it has been determined that no salvage is practical, the landowner should contact a professional forester to provide an evaluation of timber lost (not salvageable.)

## **PROTECTION IS ALWAYS NEEDED**

Protection of woodlands from livestock grazing and from fire is of utmost importance during the recovery period after a tornado.

The spring and fall of the year are the times of greatest fire danger, and it is important to keep access roads and fire trails clear of debris. With many trees down, the burnable fuel on the ground will be at an all-time high during the first year after the damage occurs.

Quick access to a fire can mean the difference between a small, easily controlled fire and a raging inferno.

## **REBUILDING A STAND OF TIMBER**

The landowner should follow up any salvage cut with the forest improvement work necessary to make a complete clearcut of the affected area. This will mean deadening and or removing all trees, shrubs, vines, etc. that can compete with natural regeneration.

Care and good judgment must be exercised to fit this practice to the soils and sites that will respond favorably to this treatment.

If desirable regeneration in sufficient densities does not take place within the first growing season after this improvement work, plantings of desirable species should be made.

Once the new stand has started to grow, continue to protect from fire and livestock grazing. The new growth should not need thinning for 10-15 years after the clearcut treatment.

If the clearcut treatment is not applied, the woods will become a "junk" forest as long as a majority of the damaged trees occupy the site. Then, as the "junk" trees gradually succumb to insects, disease or old age, there is a strong possibility they will be replaced by extremely slow growing, shade tolerant species such as hickories, dogwoods, ironwood and beech. As competing uses gradually deplete the forest resource base in Indiana, we cannot afford to leave the tornado damaged woodland in its present condition.

*For more information about restoring tornado damaged woodlands and a listing of professional foresters, contact your district forester or the Division of Forestry office by visiting our web site at: [www.dnr.IN.gov/forestry](http://www.dnr.IN.gov/forestry) or telephoning 317/232-4105*